CLAIMS:

1. A butterfly-type control valve comprising:

a valve housing molded from a synthetic resin, wherein the valve housing includes a housing wall that defines a flow path;

a non-circular valve member having opposing long sides and disposed within the flow path; and

a valve shaft rotatably supported by the valve housing, wherein the valve member is coupled to the valve shaft,

the housing wall including wall portions that extend substantially parallel to the long sides of the valve member; and

each of the wall portions having an inner surface concaved in a direction away from the valve shaft in a state after the valve housing has been molded and before the valve housing has been cooled.

2. A butterfly-type control valve as in claim 1, wherein the inner surface of each of the wall portions maintains the concave configuration even after the valve housing has been cooled.

3. A butterfly-type control valve as in claim 1, wherein the long sides of the valve member extend substantially linearly, the flow path has a non-circular configuration corresponding to the configuration of the flow path, and the inner surface of each of the wall portions extends along an arc.

4. A butterfly-type control valve as in claim 3, wherein the arc of the inner surfaces is curved in a direction that is substantially parallel to the corresponding long side of the valve member.

5. A butterfly-type control valve as in claim 4, wherein the arc of the inner surfaces has a curvature radius R1 that extends substantially perpendicular to the corresponding long side of the valve member through a substantially middle point of a length L of the long side.

6. A butterfly-type control valve as in claim 5, wherein the curvature radius R1 and the length L of the long side of the valve member have the relation as expressed by "R1 $\fallingdotseq$ 300, 000/L".

7. A butterfly-type control valve comprising:

a valve housing molded from a synthetic resin, wherein the valve housing includes a housing wall that defines a flow path;

a non-circular valve member having opposing long sides and disposed within the flow path; and

a valve shaft rotatably supported by the valve housing, wherein the valve member is coupled to the valve shaft,

the housing wall including wall portions extending substantially parallel to the long sides of the valve member, each of the wall portions having an inner surface and an outer surface, and

the inner surface and the outer surface having configurations concaved and convexed in a direction away from the valve shaft, respectively, in a state after the valve housing has been molded and before the valve housing has been cooled.

8. A butterfly-type control valve as in claim 7, wherein the inner surface of each of the wall portions maintain the concave configuration, even after the valve housing has been cooled.

9. A butterfly-type control valve as in claim 7, wherein the long sides of the valve member extend substantially linearly, the flow path has a non-circular configuration corresponding to the configuration of the flow path, and the inner surface and the outer surface of each of the wall portions extend along arcs, respectively.

10. A butterfly-type control valve as in claim 9, wherein the arc of each of the inner and outer surfaces is curved in a direction that is substantially parallel to the corresponding long side of the valve member.

11. A butterfly-type control valve as in claim 10, wherein the arc of the inner surface and the arc of the outer surface have a curvature radius R1 and a curvature radius R2, respectively, that extend substantially perpendicular to the corresponding long side of the valve member through a substantially middle point of a length L of the long side.

12. A butterfly-type control valve as in claim 11, wherein the curvature radiuses R1 and R2 and the length L of the long side of the valve member have the relation as expressed by "R1 = R2 $\fallingdotseq$ 300, 000/L".